

CLEAN COPY OF ALL PENDING CLAIMS

113. (Amended) An electronic assembly comprising:

a semiconductor die into which is integrated at least one electric circuit comprising a plurality of microelectronic components, said semiconductor die having a plurality of terminals; and

a plurality of resilient, springable, free-standing interconnection elements, each of the interconnection elements having a die end attached directly to a respective one of the terminals on the die, an elongate section between the die end and a contact end, and a tip on the contact end, the tip pointing away from the die.

114. The electronic assembly of claim 113 wherein the interconnection elements include a precursor element and an overcoat material covering said precursor element.

115. (Amended) An electronic assembly comprising:

a semiconductor die having a plurality of terminals; and

a plurality of resilient, springable, free-standing interconnection elements, each of the interconnection elements having a die end attached directly to a respective one of the terminals on the die, an elongate section between the die end and a contact end, and a tip on the contact end, the tip pointing away from the die, wherein the interconnection elements include a precursor element and an overcoat material covering said precursor element, the precursor element is of a flexible, substantially non-resilient material and the overcoat material provides the resilient springability of the interconnection element.

116. The electronic assembly of claim 115 wherein the precursor element includes a material selected from the group of gold, aluminum and copper, and the overcoat material includes material selected from the group of nickel, cobalt and iron.

117. (Amended) The electronic assembly of claim 113 wherein the elongate section includes at least one bend.

118. The electronic assembly of claim 117 wherein the elongate section includes a proximate portion extending from said die end at an angle away from the die, a mid-portion extending at an angle from said proximate portion, and a distal portion extending at an angle from said mid-portion and away from the die.

119. The electronic assembly of claim 118 wherein the proximate portion extends from the die end at an angle substantially perpendicular to the die.

120. The electronic assembly of claim 113 wherein the tip has a contact region which provides a releasable point contact.

121. The electronic assembly of claim 120 wherein the contact end is moveable toward the surface of the die upon the application of a downward pressure upon the tip.

122. The electronic assembly of claim 113 wherein the assembly further comprises a substrate having a plurality of contacts, and at least one of the interconnection elements conducts electricity when the tip of the interconnection elements is in releasable contact with a respective contact on the substrate.

123. An electronic assembly comprising:

a semiconductor die having a plurality of terminals; and

a plurality of resilient, springable, free-standing interconnection elements, each of the interconnection elements including a precursor element of a flexible, non-resilient material and an overcoat material covering said precursor element, the overcoat material providing the resilient springability of the interconnection element, and having

a die end attached directly to a respective one of the terminals on the die,

an elongate section extending from the die end to a contact end, the elongate section including at least a first bend and a second bend, and

a tip on the contact end, the tip pointing away from the die.

124. (New) An electronic assembly comprising:

a semiconductor die having a plurality of terminals; and

a plurality of resilient, springable, free-standing interconnection elements, each of the interconnection elements having a die end attached directly to a respective one of the terminals on the die, an elongate section between the die end and a contact end, and a tip on the contact end, wherein the interconnection elements include a precursor element and an overcoat material covering said precursor element, the precursor element is of a flexible, substantially non-resilient material and the overcoat material provides the resilient springability of the interconnection element.

125. (New) The electronic assembly of claim 124 wherein the precursor element includes a material selected from the group of gold, aluminum and copper, and the overcoat material includes material selected from the group of nickel, cobalt and iron.

126. (New) The electronic assembly of claim 124 wherein the elongate section includes at least one bend.

127. (New) The electronic assembly of claim 126 wherein the elongate section includes a proximate portion extending from said die end at an angle away from the die, a mid-portion extending at an angle from said proximate portion, and a distal portion extending at an angle from said mid-portion and away from the die.

128. (New) The electronic assembly of claim 127 wherein the proximate portion extends from the die end at an angle substantially perpendicular to the die.

129. The electronic assembly of claim 124 wherein the tip has a contact region which provides a releasable point contact.

130. The electronic assembly of claim 129 wherein the contact end is moveable toward the surface of the die upon the application of a downward pressure upon the tip.

131. The electronic assembly of claim 124 wherein the assembly further comprises a substrate having a plurality of contacts, and at least one of the interconnection elements conducts electricity when the tip of the interconnection elements is in releasable contact with a respective contact on the substrate.